

REMARKS

Claims 1 through 35 have been cancelled and replaced by new claims 36 through 41 to more distinctly claim and particularly point out the invention. No new matter has been added. Before discussing these claims in more detail, Applicants provide the following discussion to better contrast the claimed inventions from the prior art.

Authentication methods in digital rights management (DRM) schemes are known. Indeed, as set forth in the U.S. Patent Application 2003/0105718 by Hurtado, cited against the cancelled claims, it is known to use digital certificates, see paragraph 194. Content providers provide digital certificates to content users so that they become authorized to access protected content. For example, a user at a host device such as a personal computer may obtain a digital certificate that is then provided to a storage engine controlling access to protected content stored on a storage medium. The authentication process comprises verifying a digital signature provided by the content provider that is contained within the digital certificate. Once the signature is authorized, the user is authenticated and may proceed to access the protected content.

However, because digital signatures involve the use, typically, of private/public key cryptography that may become compromised, there is another layer of protection commonly available in conventional DRM schemes. That layer would be the revocation process, which follows authentication. In other words, even though a user may possess a valid certificate, if that user is identified by a revocation list, the user is denied access to the protected content. The Hurtado discloses a conventional revocation scheme at, for example, paragraph 368, wherein Hurtado states:

The End-User Player Application 195 stores a copy of the Clearinghouse's 105 certificate revocation list on the End-User Device(s) 109. Whenever a revocation list is received, the End-User Player Application 195 replaces its local copy if the new one is more

up to date. Revocation lists includes a version number or a time stamp (or both) in order to determine which list is the most recent.

As is conventional, this Hurtado revocation scheme follows authentication. It is performed as an initial handshaking routine between the host device and the storage engine.

In contrast to the conventional revocation scheme disclosed in Hurtado, the present invention provides a file-by-file revocation scheme. It is not performed immediately following authentication but instead is much more granular in that it precedes any file request by the host device. Consider, for example, pages 32 and 33 of the disclosure. As set forth by the Applicants, in their revocation scheme, each file may have its own associated revocation list, see for example, lines 21 through 23 on page 32. As such, this type of revocation would not be performed immediately after authentication – a user may or may not desire access to any given file on the storage medium. Not only do the Applicants provide greater granularity and control, the revocation itself is more adaptable in that the associated revocation list with a given file comprises a set of rules for evaluating fields in the digital certificate against data in the revocation list, see for example lines 24 through 28 on page 32.

These advantageous features of Applicants revocation scheme are reflected in the claims. For example, claim 1 recites a revocation method including the acts of: authenticating the digital signature; receiving at the storage engine a file request from the host device, the file request being directed to a file stored on a storage medium accessible to the storage engine; reading a revocation file associated with the file from the storage medium, the revocation file containing at least one rule, the at least one rule associating data in the revocation file with data in certificate; applying the at least one rule on the data in the revocation file and the associated data in the certificate; and if the application of the at least one rule provides a failing result, denying the file request.

In sharp contrast, the Hurtado application does not even disclose a revocation scheme that would apply on a file-to-file basis let alone provide the flexible rules incorporated into the method recited in claim 1.

Because claims 37 through 39 depend upon claim 36 either directly or indirectly, they are patentable over Hurtado for at least the same reasons.

Claim 40 is directed to a storage engine having means that practice the revocation method discussed with respect to claim 36. Claim 41 depends upon claim 40. Accordingly, claims 40 and 41 are also patentable over Hurtado for the reasons set forth with respect to claim 36.

CONCLUSION

For the above reasons, pending Claims 36 through 41 are in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, a telephone call to the undersigned at (949) 752-7040 is welcomed and encouraged.

I hereby certify that this correspondence is facsimile transmitted to the Commissioner for Patents, Washington, D.C. 20231, at 703-872-9306, on July 22, 2004.


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Date of Signature

Respectfully submitted,



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